



Towards sustainable food and nutrition security in Latin America and the Caribbean in response to the global food crisis

December 2022

A. An uninterrupted series of crises¹

- The impact of the war between the Russian Federation and Ukraine can be understood in the context of the crises that have affected the world economy over the past 15 years: the 2008 global financial crisis, the economic tensions between the United States and Europe, on one hand, and China, on the other, and the coronavirus disease (COVID-19) pandemic (ECLAC, 2022a).
- These crises, by disrupting global value chains, have put pressure on productive sectors, going against the globalization trend of previous decades. International trade's slower growth and smaller contribution to world growth in recent years is a clear sign of these changes (ECLAC, 2022a).
- The crises led to breakdowns in various primary and manufacturing production chains in economic sectors. Increased protectionism led to more trade barriers, while maritime transport system disruption exposed the vulnerability of the chains to exogenous changes.
- Although the pandemic has had what is probably the most severe impact of any event on logistics in recent decades, the war in Ukraine has been characterized by its potential to disrupt commodity-based sectors. Because of the specialization of the countries involved in the war in terms of production and trade, the conflict has directly affected trade and international prices of crude oil, natural gas, cereals, fertilizers and metals.

¹ The cut-off date for the information used to prepare this report is 10 November 2022, unless otherwise indicated.

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- Three of the four most recent episodes of food price increases occurred in the past fifteen years (2007–2008, 2010–2011 and since mid-2020); the other one took place in the 1970s. Monetary expansion played a central role in the 2007–2008 and 2010–2011 episodes, originating from measures to overcome the global financial crisis. Higher global liquidity and increased financialization of the markets contributed to driving up international prices of several food groups, as well as fuelling their volatility (Von Braun and others, 2008; ECLAC/FAO/IICA, 2011).
- More recently, the breakdown of logistics and production processes caused by measures to address the COVID-19 pandemic sped up the pace of price increases. Although the relative significance of supply factors and demand factors is still being debated, both are important in the current inflationary situation (ECLAC, 2022a).
- The most recent upwards trend in international food prices began in mid-2020, primarily driven by vegetable oils and grains. The pandemic-induced inflationary pressure was expected to be transitory. However, the war in Ukraine has caused further disruption to key production chains, such as those of energy and fertilizers. Not only has this prevented inflation from returning to pre-pandemic levels, it has also led to a substantial acceleration of inflation in the first seven months of 2022.
- In the case of food, the current inflationary cycle is more marked and longer-lasting than the price rises of 2007–2008 and 2010–2011. The Food and Agriculture Organization of the United Nations (FAO) Food Price Index (FFPI), measured in real terms, rose 64 points between June 2020 and March 2022, reaching an all-time high² of 156.3 points in that month (see figure 1). The index then fell 23.3 points (14.9%) between March and October 2022, but remains above the highs of the past decades.

Figure 1 FAO Food Price Index, real monthly variation, January 1990–October 2022
(Index, average 2014–2016=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Food and Agriculture Organization (FAO), FAO Food Price Index [online] <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>.

- Although world grain production is still sufficient to meet demand, rising input and transport prices and logistical constraints on access to crops mean that food now costs much more. As a result, consumers face restrictions on access to, but, for the time being, not on availability of food.
- Within countries, this pattern separates those who can afford to pay higher food prices from those who cannot. In the case of fertilizers, at current prices there is a high risk of segmentation of farmers who have the means to buy from those who do not.
- Unequal access to agricultural inputs amplifies the structural heterogeneity of agriculture in Latin America and the Caribbean. Smallholders, who produce for local consumers and sell in

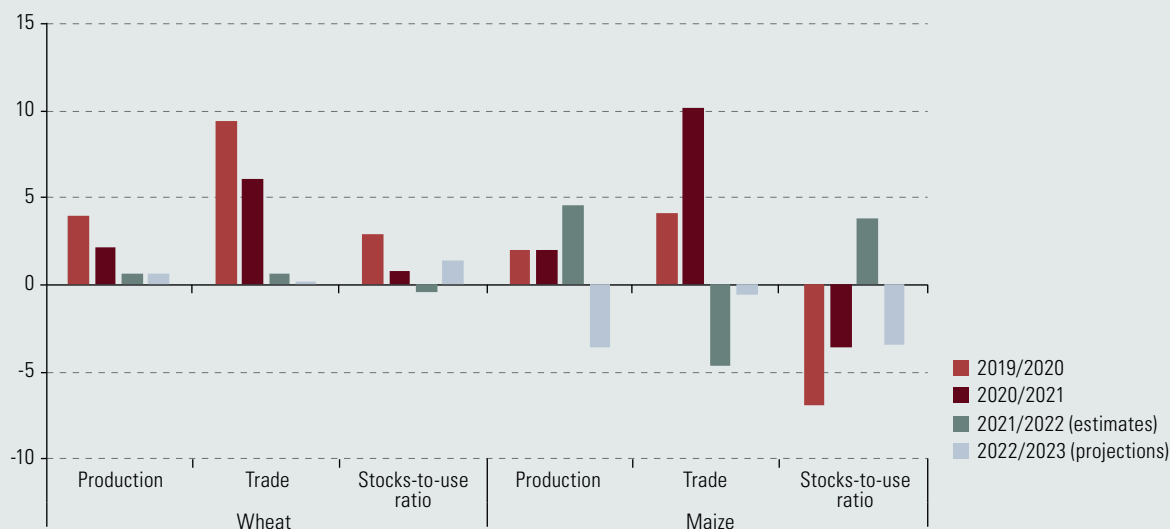
² The index has been calculated on a monthly basis since January 1990.

domestic currency while paying for dollar-denominated inputs, may be forced to reduce their use of those inputs significantly and risk further declines in yields and total output. Their products are vital for food security in the urban and rural areas of the region.

B. Restrictions on food production are aggravating the effects of the climate crisis

- The war in Ukraine is affecting the global food supply in several ways. Firstly, destruction of infrastructure and blockades of ports in the Black Sea makes it difficult for stockpiles in Ukraine and the Russian Federation to leave the countries. Ukrainian exports have come to a virtual standstill since the war began, mainly owing to closures of the ports through which around 90% of its agricultural products were previously exported.
- On 22 July 2022, the Black Sea Grain Agreement was signed by Ukraine, the Russian Federation and Türkiye, in Istanbul, Türkiye, under the auspices of the United Nations, to enable the transport of grain, other foodstuffs and fertilizers from three Ukrainian ports on the Black Sea to the rest of the world. In early August, for the first time in more than five months, a ship loaded with maize left the Ukrainian port of Odesa for Türkiye.
- The Agreement was greeted with optimism and the FAO Cereal Price Index fell 19.1 points (11.5%) in July. International prices of all grains in the index declined in July; wheat prices were down by 14.5% and maize by 10.7%. Despite this, international wheat prices remain 24.2% above October 2021 levels.
- The Russian Federation and Ukraine are among the world's key suppliers of agricultural products: together, they exported 12% of the calories traded in 2021. In the case of wheat, the two countries accounted for around 30% of world exports, for maize, their combined share was about 20% and for sunflower oil, 55% (FAO, 2022a).
- Before the signing of the Agreement in Istanbul, around half of Ukraine's grain export supply, 22 million tons, was in storage with no possibility of being shipped. Between 1 August and 28 October, more than 9.3 million tons of grains, oilseeds and other foodstuffs were exported under the agreement (Laborde and Glauber, 2022). In mid-November, the Black Sea Grain Initiative was renewed for a further 120 days.
- The war is also a threat to world grain production in the 2022/23 season. In Ukraine, there is a lack of fuel, labour and, in many areas, machinery for sowing crops. Around one third of crops may not be harvested and the same proportion of agricultural land, not cultivated in 2022 (FAO, 2022d). As a result of trade sanctions, the Russian Federation may find itself short of machinery, seeds and pesticides that it normally buys from the European Union and other countries.
- In the 2022/2023 season, global maize production is forecast to be 3.7% lower (see figure 2), reflecting a steeper decline than at the nadir of the pandemic. This stems from the decreases already seen in production in the European Union and the United States, and from further reductions forecast in Ukraine. Global wheat production, meanwhile, is expected to increase slightly in 2022/2023, to the extent that the decline in production in Ukraine is offset by an increase in other producing areas.
- The cases of wheat and maize are illustrative of how weather-related shocks can further weaken world production that has already been hit by the war. India, the world's second largest wheat producer, experienced extreme temperatures last spring, much earlier than expected, affecting crops and pushing up international grain prices in May and June 2022. This led the government to roll back a plan to supplement world wheat supplies, which had been depleted by the war. Owing to climate change, the probability of such extreme events is estimated to have increased by a factor of about 30 (Zachariah and others, 2022).
- In the European Union, not only are temperatures high, 47% of the territory is subject to drought warnings and 17% in states of alert (European Commission, 2022). As a result, the wheat harvest completed in mid-2022 was 4% smaller than in 2021. In the case of maize, production in the 2022/23 season is estimated to be 15% lower (USDA, 2022).

Figure 2 Annual growth rates for world wheat and maize production, trade, and stocks-to-use ratios, 2019/20–2022/23 seasons (Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Agricultural Market Information System (AMIS).

- Declines in cereal harvests also affect livestock. Cattle, poultry and pig farmers face higher grain and energy costs, as well as more frequent disease outbreaks. In the European Union, this has affected livestock numbers and pushed up meat prices, which in June 2022 were about 12% higher than in 2021, according to Eurostat data.
- Farmers do not always benefit from higher cereal prices, as producer prices are less elastic in relation to global prices than wholesale prices (Dutoit, Hernández and Urrutia, 2010). There are asymmetries in agricultural commodity markets, with few buyers and many geographically dispersed and unaffiliated producers. Prices are volatile and windows for selling are concentrated in time, limiting producers' bargaining power. Above all, producers' income margins are narrowing, because fertilizer and energy prices are rising more quickly than grain prices (FAO, 2022b; United Nations, 2022a).

C. The vast majority of Latin American and Caribbean countries are net importers of cereals

- Latin America and the Caribbean as a region has an annual agricultural surplus of more than US\$ 127 billion, equivalent to US\$ 200 per capita, more than any other region in the world except Oceania. Even so, the vast majority of the countries in the region are exposed to production and marketing problems, as well as to price hikes caused by the war in Ukraine, as they are net importers of wheat, maize and vegetable oils (see table 1).
- In the region, 26 countries are highly reliant on wheat imports, while 13 countries are highly reliant on maize imports. Only Argentina is a net exporter of all the agricultural products shown in table 1, while the Caribbean subregion is a net importer of almost all of them.
- The countries of Latin America and the Caribbean do not depend on the Russian Federation and Ukraine for their imports of wheat, maize and vegetable oils. However, regional imports of these and other foodstuffs are being affected by the war in Ukraine through higher global prices.
- Regional food imports are also being affected by export restrictions by several countries not directly involved in the conflict. On average, products equivalent to 5% of the calories imported by the region are affected by trade restrictions applied in response to the war. In the cases of Haiti and Nicaragua, this percentage is more than 10% (Laborde and Mamun, 2022).

Table 1 Latin America and the Caribbean: trade balance of main agricultural items, 2018–2020 average
(Millions of dollars)

	Agricultural products	Food (excluding fish)	Cereals	Maize	Wheat	Dairy products	Fruits and vegetables	Meat	Vegetable oils
Latin America and the Caribbean	127 142	109 264	507	3 882	-2 702	-2 522	37 143	17 259	2 765
The Caribbean	-6 181	-6 292	-1 719	-552	-483	-764	-359	-1 221	-652
Antigua and Barbuda	-123	-115	-1	0	0	-10	-20	-24	-2
Bahamas	-437	-417	-8	0	0	-31	-64	-102	-10
Barbados	-243	-230	-16	-7	-5	-25	-54	-34	1
Cuba	-1 632	-1 635	-668	-181	-181	-204	-109	-446	-104
Dominica	-33	-32	-1	0	-	-3	-1	-9	-2
Dominican Republic	-908	-1 244	-431	-276	-137	-246	159	-219	-169
Grenada	-58	-53	-5	-1	-3	-9	-4	-17	-2
Haiti	-1 294	-1 279	-345	-6	-59	-71	-76	-126	-279
Jamaica	-595	-515	-152	-58	-53	-44	-42	-85	-37
Saint Kitts and Nevis	-39	-35	-1	0	-	-4	-5	-11	-1
Saint Lucia	-109	-102	-5	-1	-2	-14	-12	-31	-4
Saint Vincent and the Grenadines	-58	-59	-12	-2	-9	-7	-2	-18	-3
Trinidad and Tobago	-652	-576	-73	-20	-34	-97	-130	-100	-39
Central America and Mexico	13 106	15 888	-6 179	-3 891	-1 371	-1 643	17 934	-2 051	-83
Belize	-31	19	-7	-1	-5	-19	68	-9	-13
Costa Rica	2 593	2 633	-335	-187	-71	84	2 392	-10	79
El Salvador	-1 145	-929	-266	-150	-79	-184	-235	-248	-112
Guatemala	2 627	2 638	-488	-273	-160	-214	1 485	-213	375
Honduras	539	656	-274	-137	-74	-41	401	-123	221
Mexico	9 434	11 529	-4 459	-2 977	-907	-1 264	13 690	-1 800	-571
Nicaragua	1 077	1 010	-147	-62	-34	140	228	485	-14
Panama	-1 988	-1 668	-204	-104	-40	-145	-96	-132	-49
South America	120 217	99 669	8 405	8 325	-848	-114	19 569	20 530	3 500
Argentina	29 650	20 358	8 377	5 388	2 248	714	2 386	3 101	3 812
Bolivia (Plurinational State of)	643	176	52	-4	-18	-5	183	28	302
Brazil	72 913	62 176	4 141	5 561	-1 395	-423	1 831	15 541	76
Chile	5 046	5 582	-803	-394	-291	-187	6 562	-401	-254
Colombia	1 130	635	-1 831	-1 151	-458	-140	707	-263	6
Ecuador	3 982	3 821	-352	-49	-314	-6	3 786	-14	47
Guyana	42	63	169	-12	-9	-31	-21	-8	-12
Paraguay	4 384	3 723	589	268	76	-8	-38	1 126	415
Peru	2 272	2 757	-1 340	-738	-538	-153	4 445	-181	-381
Suriname	-83	-81	29	-2	-5	-14	13	-20	-15
Uruguay	3 595	3 503	384	-75	53	630	-80	1 733	-92
Venezuela (Bolivarian Republic of)	-3 359	-3 044	-1 010	-466	-196	-491	-206	-112	-403

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO), Corporate Database for Substantive Statistical Data (FAOSTAT).

Note: Darker shades indicate a larger surplus (green) or deficit (red) relative to imports of each category in each country.

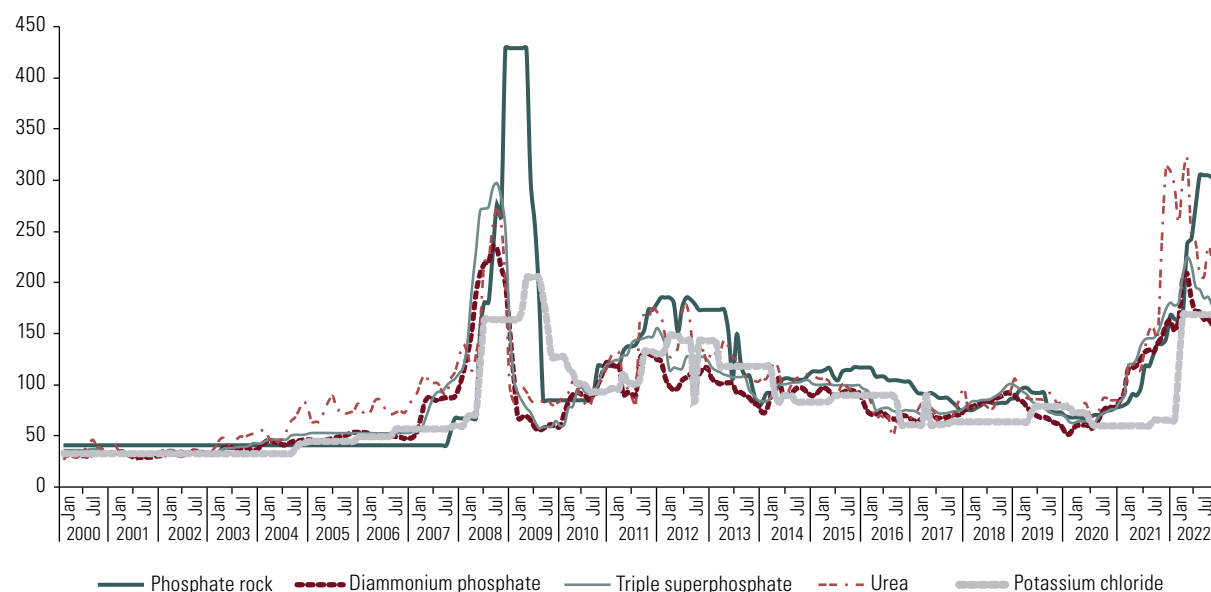
- The ongoing crisis has come at a time of high debt levels, in part because of increased public spending to address the challenges posed by the pandemic. In March 2022, the ratio of central government debt to GDP for Latin America and the Caribbean was 52.1%, 4.4 percentage points lower than at the height of the pandemic in 2020. Even so, this is over 20 percentage points higher than during the 2008 financial crisis (ECLAC, 2022a and 2022b).
- Credit conditions have also worsened as developed economies have adopted more restrictive monetary policy. The resulting increase in the cost of international credit is greatly affecting countries whose total external debt includes a large proportion of floating rate borrowing. More than half of the Latin American and Caribbean countries for which information is available are in this situation (ECLAC, 2022a).
- The effect of developed countries' restrictive monetary policies on devaluation of the region's currencies is another factor driving inflation. These conditions may well undermine implementation of social protection policies, transfers to the low-income population and support for food production. In the case of countries that are highly dependent on food and fertilizer imports, macroeconomic conditions have an even more direct impact on food security.

D. Insufficient fertilizer production: uncertainty for agriculture

1. Fertilizers are increasingly unaffordable for farmers

- The increase in fertilizer prices is another effect of the war, as the Russian Federation was, in 2021, the world's largest exporter of nitrogen fertilizers, the second-largest supplier of potassium and the third-largest exporter of phosphate fertilizers. Although fertilizers, as well as food, have been excluded from the sanctions imposed on the Russian Federation by the international community, logistical and financial restrictions operate as barriers to trade in these inputs, driving up prices. Added to this are the high prices of natural gas, a fundamental input in the production of nitrogen fertilizers.
- As in the case of basic foodstuffs, nitrogen and phosphate fertilizer prices had already risen sharply throughout 2021 owing to rising natural gas prices, but in the first weeks after the start of the war in April 2022, they reached their highest levels in several years (see figure 3). The price of urea increased the most, followed by triple superphosphate and diammonium phosphate.

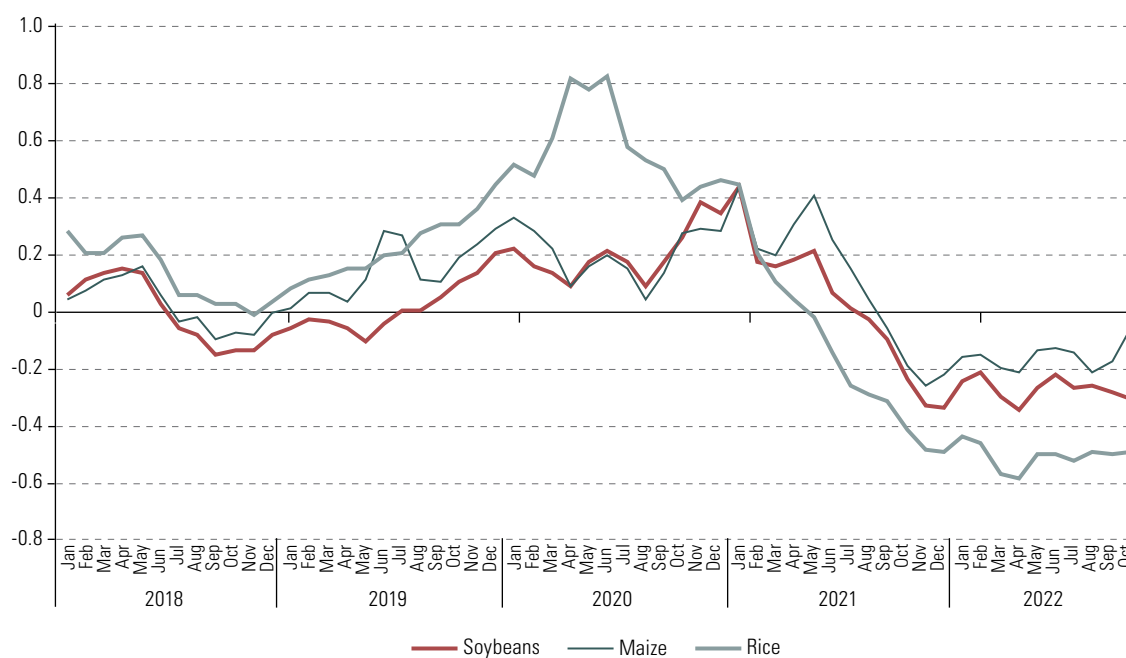
Figure 3 Fertilizer price indices, based on nominal monthly prices in dollars, by type of fertilizer, January 2000–October 2022 (Index: 2010=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the World Bank.

- Since the end of July, the prospect of increased exports from the conflict zones drove down the prices of most fertilizers, with the exception of phosphates. However, prices remain significantly above those of mid-2021. Fertilizer prices are likely to remain high because of supply uncertainty and high natural gas prices.
- This price crisis differs somewhat from the rise observed in 2008. Although in both cases higher energy prices had an impact on the cost of fertilizer production and distribution, the 2008 boom was characterized by a strong demand-side effect (a rise in response to high food prices), low inventories and the industry's inability to adjust production levels quickly (Huang, 2009).
- Fertilizers, together with energy (fuels), are the main expense item for farmers in many chains. In Brazil, for example, fertilizers accounted for 19% of annual crop production costs according to the 2017 Agricultural Census, when prices had not yet started their upward trend. Combined with agrochemicals and fuel, they account for an average of more than 40% of costs. Fertilizer prices nearly tripled from 2017 onward and fuel prices doubled, which has weighed heavily on total costs.
- The variation in exchange rates has also been unfavourable for input imports, especially for farmers whose products are priced in local currency. The fertilizer affordability indicator, which expresses the relationship between the prices of each crop and the main fertilizer used in its production, has shown a greater deterioration in products such as rice, for which international trade is less important in terms of consumption than that of soybeans or maize (see figure 4). The deterioration was greater in the months prior to the start of the war, when fertilizer prices rose much more than food prices.

Figure 4 Fertilizer affordability indicator, January 2018–October 2022



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO), Corporate Database for Substantive Statistical Data (FAOSTAT) and World Bank.

Note: The indicator expresses the relationship between the international prices for soybeans, maize and rice, and the fertilizer price index (average for nitrogenous, phosphate and potassium fertilizers).

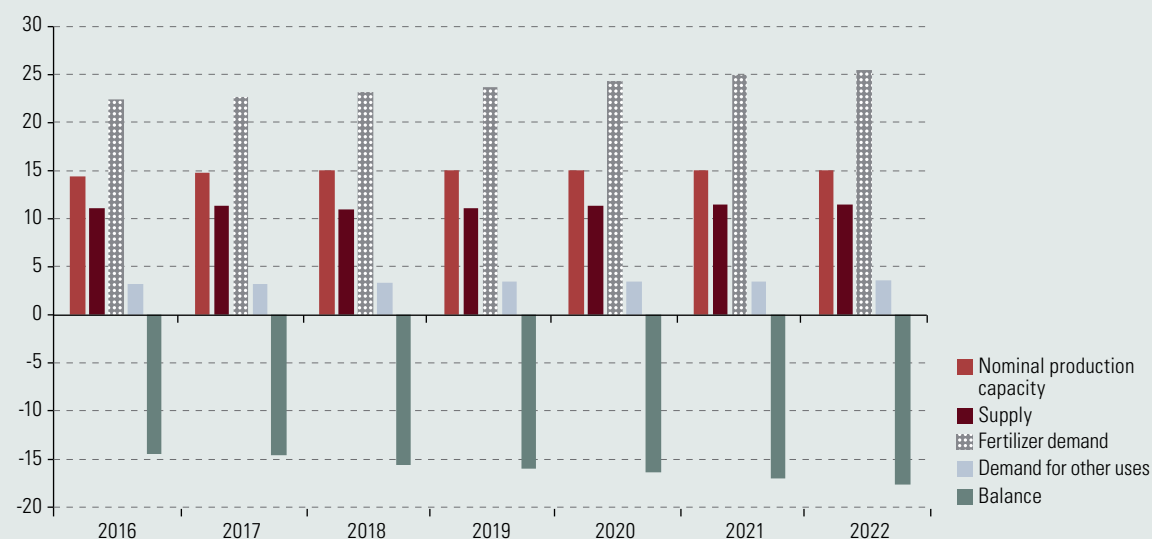
- Farmers' strategies to circumvent the current fertilizer price hike include planting varieties that are less intensive in the use of synthetic fertilizers, changing fertilization practices, using bioinputs and technologies that increase efficiency (soil and plant analysis, sensors, remote sensing, variable rate application), and reducing or postponing fertilizer application. The main risk is that locally consumed products, which are very important for food security, will be affected by a significant reduction in fertilizer use and, therefore, by a decrease in yields and production. This could result in restrictions on the availability of some foods.

2. The region is highly dependent on fertilizer imports

- Latin American and Caribbean countries import about 85% of the fertilizers they use.³ No other region in the world is so dependent on fertilizer imports, and especially no other region that produces and exports so much food. In the region as a whole, the intensity of fertilizer use has been growing at higher rates than in the rest of the world.
- Synthetic fertilizer production capacity has hardly increased in recent years, in the region, which implies that the increase in demand has translated into greater dependence on imports (see figure 5). Regional production capacity is low in relation to demand, especially for potassium, the fertilizer for which demand has risen most sharply in recent years, together with phosphoric acid. However, nitrogen fertilizers continue to be the most widely used fertilizers in the region and in the world.

Figure 5 Latin America and the Caribbean: estimated nitrogen, phosphoric acid and potassium (NPK) fertilizer balance, 2016–2022

(Millions of tons)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO), *World fertilizer trends and outlook to 2022*, 2019.

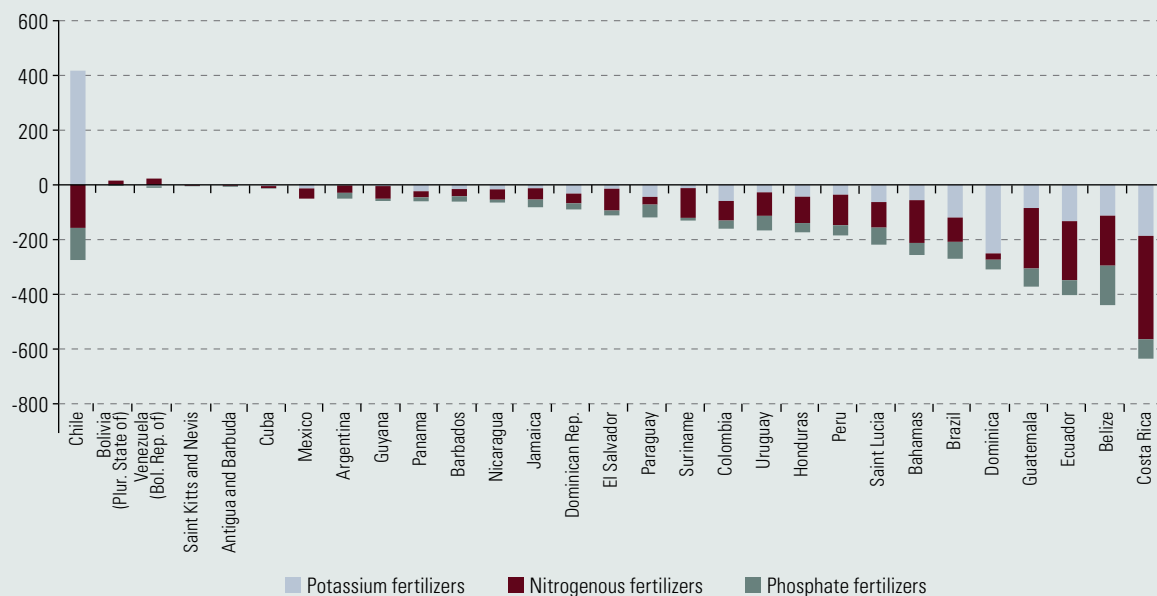
- International fertilizer production and trade are dominated by a few producing countries and companies. Five countries produce 62% and export 55% of the fertilizers consumed worldwide,⁴ while five companies (Nutrien, Yara, Mosaic, EuroChem and Israel Chemicals) account for 45% of the fertilizer market, estimated at US\$ 160 billion in 2021.⁵ A consequence of this high concentration is that fertilizers tend to be difficult to access for many farmers, owing to distribution or price factors, especially in marginal producing areas (Torero and Hernandez, 2018).
- The region is highly dependent on fertilizer imports from the Russian Federation, which supplies one fifth of its imports. In the case of nitrogen fertilizers, the share of the Russian Federation increases to a quarter of regional imports. Brazil is the main market for Russian fertilizer exports, not only in the region, but also worldwide. Argentina, Nicaragua, Uruguay and Colombia import between 10% and 20% of their fertilizers from the Russian Federation; Brazil, Guatemala, Mexico, Costa Rica and Panama import between 20% and 30%; Suriname and Ecuador between 30% and 40%, and Peru and Honduras more than 40% (FAO, 2022b).
- In particular, eight countries are the most exposed, since they import the most fertilizers of any origin relative to the area of cultivated land: Costa Rica, Belize, Ecuador, Guatemala, Dominica, Brazil, Bahamas and Saint Lucia (see figure 6). As in the case of food, regional fertilizer imports are affected not only by rising prices, but also by export restrictions. On average, 36% of nitrogen fertilizers, 20% of potash fertilizers and 19% of phosphate fertilizers imported into the region have been affected by trade restrictions imposed in the context of the war. These values exceed 30% of imports in many countries (Laborde and Mamun, 2022).

³ Based on FAOSTAT data. Intraregional imports are included.

⁴ Based on FAOSTAT data.

⁵ Based on World Fertilizer Magazine [online] www.worldfertilizer.com.

Figure 6 Latin America and the Caribbean:^a net fertilizer trade, by type of nutrient, 2018–2020 average
(Tons per 1,000 hectares of cultivated land)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO), Corporate Database for Substantive Statistical Data (FAOSTAT).

- Despite increased trade barriers and logistical and financial difficulties, including restrictions on the international operations of several Russian banks, countries such as Brazil, the largest importer of fertilizer from the Russian Federation, have continued to purchase the most essential products from that country (*New York Times*, 2022). Costs, however, continue to rise and could exclude family farmers from access to this important input.

E. Food inflation increases the risk of hunger

1. Food accounts for two thirds of the inflation experienced in lower-income households

- Increases in international agricultural commodity prices are passed on to end consumers according to a number of factors, including dependence on international trade, the degree of trade openness, domestic market protection policies, diet and the availability of substitutes. In the region, food price increases have exceeded headline inflation since the end of 2018 and accelerated since May 2020 (see figure 7). In September 2022, the 12-month average increase in the regional food price index reached 11.7%, compared to 7.1% for headline inflation.
- In South America, wheat prices decreased or stabilized in July 2022, but in October were still 25% above year-earlier levels. Yellow maize prices fell from June 2022 onward, in line with seasonal trends, but were also higher year on year, mainly due to rising production costs. In the group comprising Central America and Mexico, the largest price increase affected white maize.⁶
- The decline in international food prices between April and October was not reflected in national prices.
- There is usually a lag between international and local price variations due to the different timing of purchases and variations in stocks. Adjustment can take several months in certain markets (Dutoit, Hernández and Urrutia, 2010). A positive correlation between domestic and international prices is more probable when the latter rise rather than fall (Greb and others, 2012).

⁶ Based on FAO, Food Price Monitoring and Analysis (FPMA) [online] <https://www.fao.org/giews/food-prices/home/en/>.

Figure 7 Latin America and the Caribbean (26 countries):^a year-on-year variation in the consumer price index (CPI) and the consumer price index for food and beverages, weighted average, 2017–2022 (Percentages)

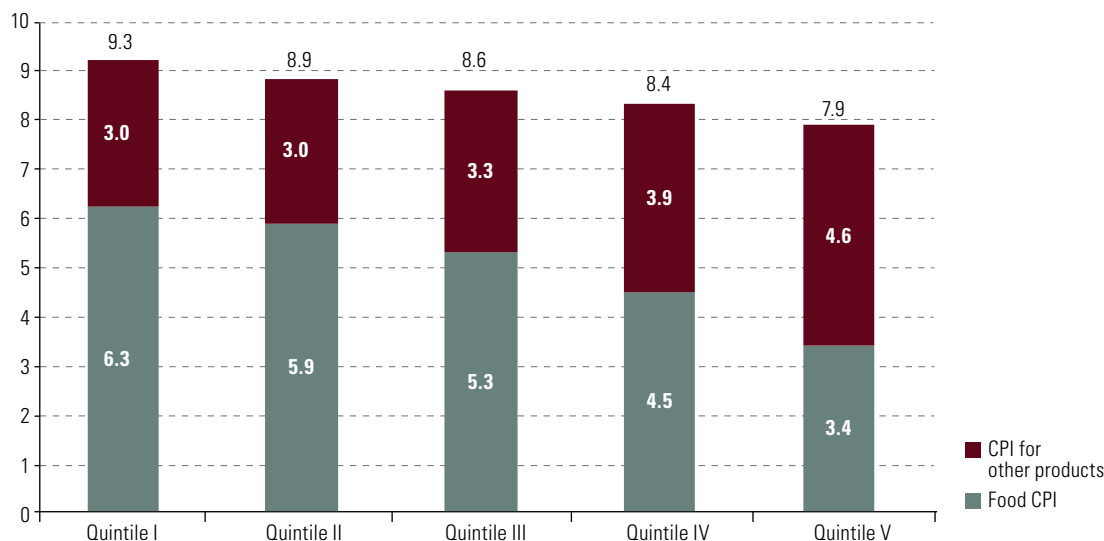


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

^a Does not include Argentina, Cuba, Haiti, Saint Lucia, Saint Vincent and the Grenadines, Suriname or Venezuela (Bolivarian Republic of).

- Rising inflation, especially food inflation, poses an additional challenge to an inclusive recovery, as low-income countries and households, which spend a high proportion of their income on food, are hardest hit. In the region, inflation experienced by the first (poorest) income quintile is 1.4 percentage points higher than that of the fifth (richest) quintile (see figure 8).

Figure 8 Latin America (average of 17 countries):^a share of food and other products in 12-month headline inflation, by income quintiles, September 2022 (Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

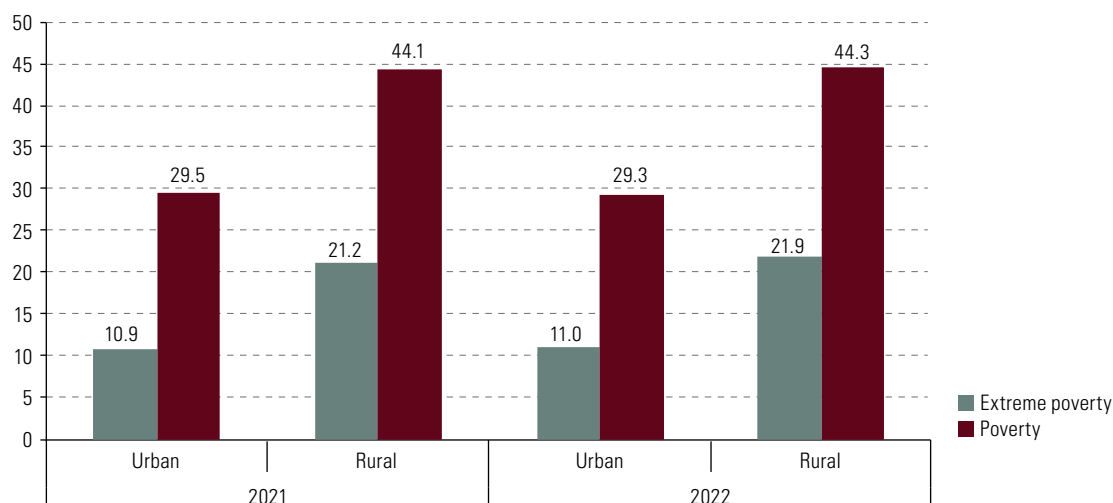
^a The countries included are: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

- On its own, food accounts for just over two thirds of headline inflation for first quintile incomes and less than half for fifth quintile incomes (see figure 8). This influence varies from country to country: in Brazil, food accounts for one third of inflation in lower-income households, but one seventh in higher-income households (IPEA, 2022); in Panama, Nicaragua, Ecuador and Guatemala, food prices represented more than three quarters of inflation in the last 12 months for households in the first quintile and close to half for those in the fifth quintile.
- Higher food prices not only impact lower-income families more; if not offset by an adjustment in income, they make it difficult to access a healthy diet and cause food insecurity and hunger. Developed by the Economic Commission for Latin America and the Caribbean (ECLAC) and FAO, the following indicators allow us to analyse this phenomenon from different perspectives.

2. Extreme poverty, food insecurity and hunger

- Poverty is defined as a situation in which the level of income is insufficient to sustain a given standard of consumer spending. Based on this definition, ECLAC classifies a household and its members as poor when their income per person is below the minimum amount needed to meet the basic needs of the household's members (ECLAC, 2018). In the case of extreme poverty, this income is below the extreme poverty line, which is defined as the cost of a basic food basket. The parameters used by ECLAC to evaluate dietary energy sufficiency of food baskets are derived from FAO and World Health Organization (WHO) recommendations.
- Based on this methodology, ECLAC predicts a 0.2 percentage point rise in rates of extreme poverty in Latin America and the Caribbean in 2022. This represents 1.8 million additional people and a total of 81.8 million people living in extreme poverty (ECLAC, 2022c). Of this total, 55.7 million people live in urban areas and 26.1 million in rural areas.
- In 2022, region-wide (based on data from 16 countries), extreme poverty is estimated to affect 21.9% of the rural population, an increase of 0.7 percentage points from the year before, and 11% of people living in urban areas, an increase of 0.1 percentage points (see figure 9).

Figure 9 Latin America and the Caribbean (16 countries):^a Projected rates of poverty and extreme poverty in rural and urban areas, 2021 and 2022 (Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Household Survey Data Bank (BADEHOG).

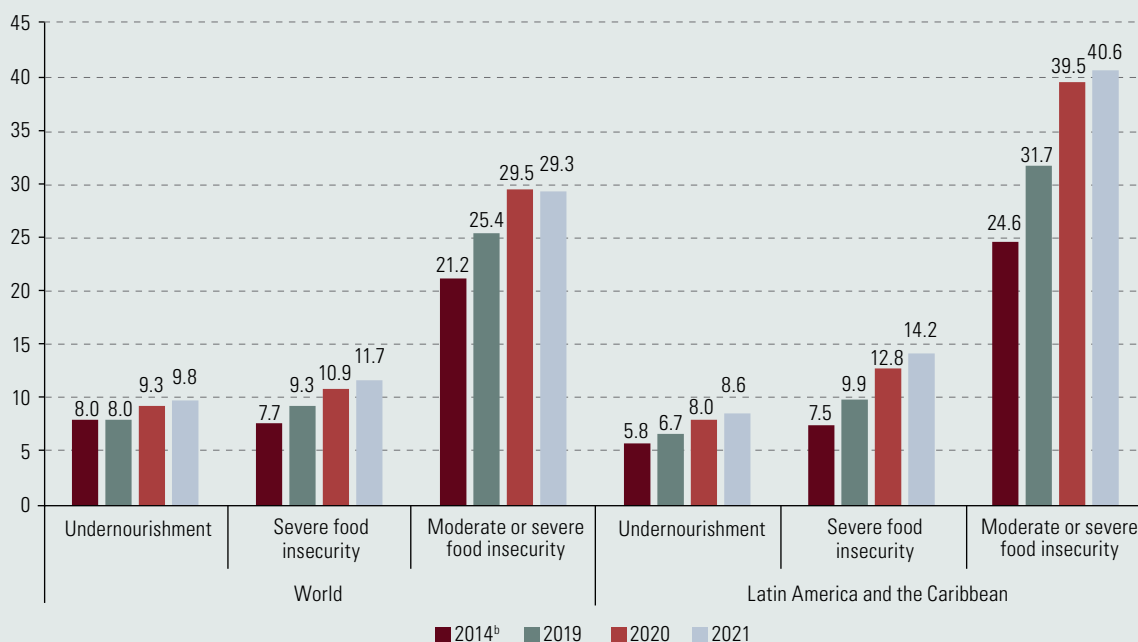
Note: The data in the figure are a breakdown by geographic area of the alternative scenario presented in ECLAC, *Repercussions in Latin America and the Caribbean of the war in Ukraine: how should the region face this new crisis?*, Santiago, 6 June 2022.

^a Countries included in the calculation: Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

- In most countries, extreme poverty continues to rise at a higher rate and affect more people in rural than in urban areas in 2022. This trend shows that the rise in international food prices does not always benefit farmers, especially in the context of family farming.

- The increase in extreme poverty, particularly in rural areas, and the resulting deterioration in food security is a key driver of trends in migration. Data to June 2022 (WFP, 2022a) point to a substantial increase in migration to North America in the first half of the year, with the United States as the destination of choice for 8 out of 10 migrants. Along with a host of other risks, the migrant population is subject to a high rate of food insecurity (WFP, 2022b).
- FAO uses a range of indicators to monitor hunger and food insecurity. Two of these—the prevalence of undernourishment and the prevalence of moderate or severe food insecurity—offer different perspectives and are based on different methodologies and sources of information.⁷ Both are used to monitor progress towards Sustainable Development Goal 2 (zero hunger).
- Moderate food insecurity occurs when access to food is uncertain. Those affected can be obliged to sacrifice other basic needs, such as health or education, in order to pay for food. Added to this, people tend to choose the cheapest or most readily available food option, which may not be the most nutritious, resulting in an increase in obesity and other forms of malnutrition. Severe food insecurity occurs when a person has run out of food and has not eaten for one day or more. It becomes chronic when a person does not consume a sufficient number of calories on a regular basis. Because FAO uses the prevalence of undernourishment indicator to estimate the extent of hunger in the world, hunger is often also referred to as undernourishment.
- The rise in food inflation and extreme poverty is one of the factors behind the increase in food insecurity and hunger (see figure 10). Undernourishment has climbed in the region since 2014, and its prevalence increased by 1.9 percentage points between 2019–2021, extending to 8.6% of the population. The number of people in the region suffering from hunger increased by 13.2 million to 56.5 million.

Figure 10 Latin America and the Caribbean (32 countries) and the world:^a prevalence of undernourishment and moderate or severe food insecurity, around 2014, 2019, 2020 and 2021
(Percentages of the population)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO), *The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable*, Rome, 2022 [online] <https://www.fao.org/3/cc0639en/cc0639en.pdf>.

^a The indicators of severe and moderate or severe food insecurity refer to the following countries: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Costa Rica, Ecuador, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Paraguay, Peru, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago and Uruguay.

The undernourishment indicator refers to the following countries: Argentina, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay and Venezuela (Bolivarian Republic of).

^b Data are for 2014, except for the prevalence of undernourishment, which is for 2015.

⁷ See further details in FAO, "Hunger and food insecurity" [online] <https://www.fao.org/hunger/en/>.

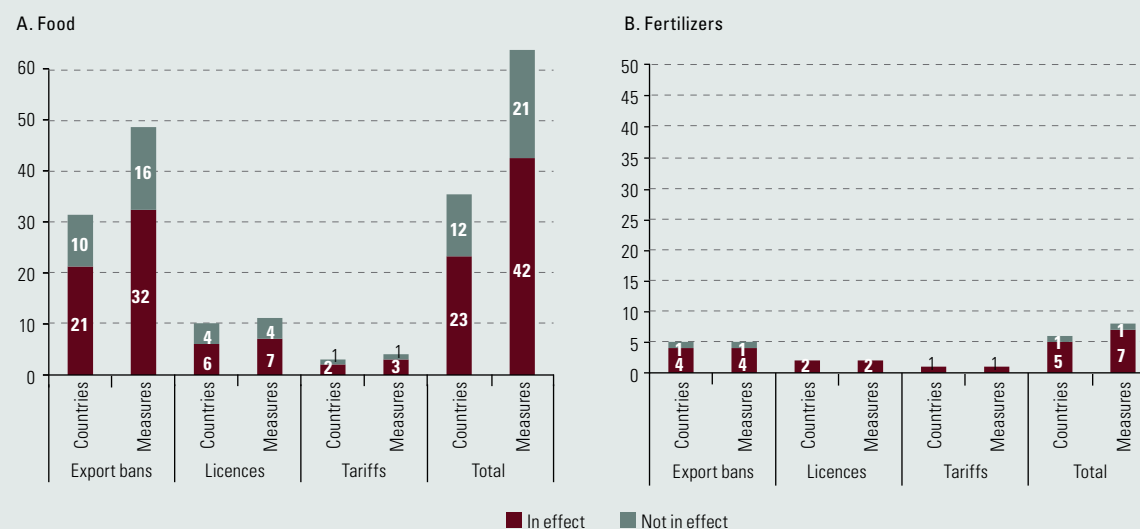
- In 2021, moderate or severe food insecurity affected 40.6% of the regional population, far above the world average (29.3%). Between 2019 and 2021, the prevalence of moderate and severe food insecurity rose from 31.7% to 40.6%—almost 9 percentage points—the steepest increase compared to other regions of the world. In 2021, a total of 267.7 million people suffered from food insecurity in Latin America and the Caribbean—62.5 million more than in 2019. Within the region, the largest increases in food insecurity are in South America.
- Severe food insecurity in the region stood at 14.2% in 2021, almost double the figure of 7.5% recorded in 2014. The largest increase (2.9 percentage points) was recorded between 2019 and 2020, in the context of the pandemic.

F. The international and regional response

1. Increased restrictions on food trade

- The governments of major food-producing countries, which initially responded by tightening export restrictions, will play a key role in future price developments. Since the beginning of the war in Ukraine, 29 countries have imposed 63 measures to restrict food exports, including bans, licenses and tariffs. At the end of August 2022, 42 of these measures were in effect (see figure 11).

Figure 11 Restrictions applied to food and fertilizer exports worldwide since the beginning of the war in Ukraine, end of February–20 August 2022
(Number of countries and restrictions)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Laborde D. & Mamun A. (2022). Food and fertilizer export restrictions tracker.

Note: As some countries have applied more than one type of restriction, the total number of countries does not coincide with the sum of the parts.

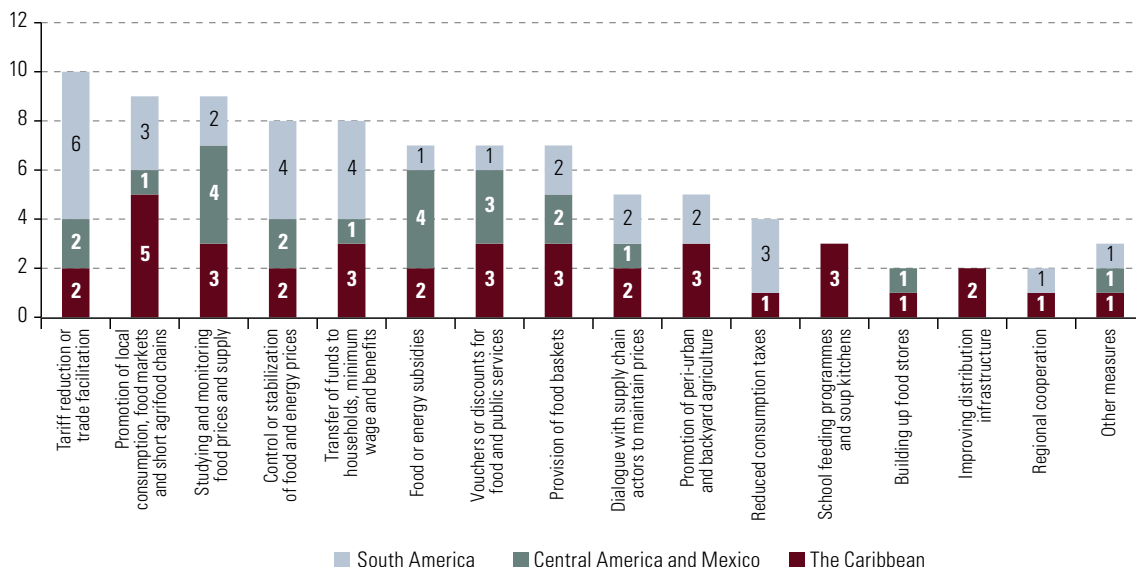
- The most common measures are bans, primarily aimed at limiting trade. Combined, these measures concern products that provide approximately 17% of all calories traded worldwide. In the first four weeks of the pandemic, 21 countries implemented export restrictions on a wide range of products and, at its peak (between May and June 2020), about 8% of total traded calories were affected (Glauber, Laborde and Mamun, 2022).
- With respect to fertilizers, six producing countries have imposed eight export restriction measures since the beginning of the war (see figure 11). These measures have affected nearly a third of nitrogen and phosphate fertilizer exports and a quarter of potash exports. In other cases, fertilizer and food exports, although excluded from the sanctions imposed on the Russian Federation and other countries, have been affected by logistical and financial constraints such as sanctions on Russian banks, which make it difficult to pay exporters.

- With food inflation rising and no solution to the war in sight, experience suggests that more countries may impose restrictions (Glauber and Laborde, 2022). This would further drive up prices and increase volatility.
- Estimates of the impacts of export restrictions during the 2007–2008 food price crisis suggest that such policies were responsible for 40% of the increase in agricultural prices (Glauber and others, 2022). If trade in food and fertilizer continues to be restricted, prices will continue to rise and food security will be threatened in more countries that depend on food imports.

2. Responses in Latin America and the Caribbean to rising food and fertilizer prices

- The measures most frequently implemented in the region to reduce the cost of food imports are tariff reductions and other forms of trade facilitation. Ten countries have implemented such measures in recent months (see figure 12). The promotion of local food consumption, through campaigns and support for local food markets and short agrifood chains, as well as the monitoring of food prices and supply, are the second-most widely used measures, with nine countries having implemented each.

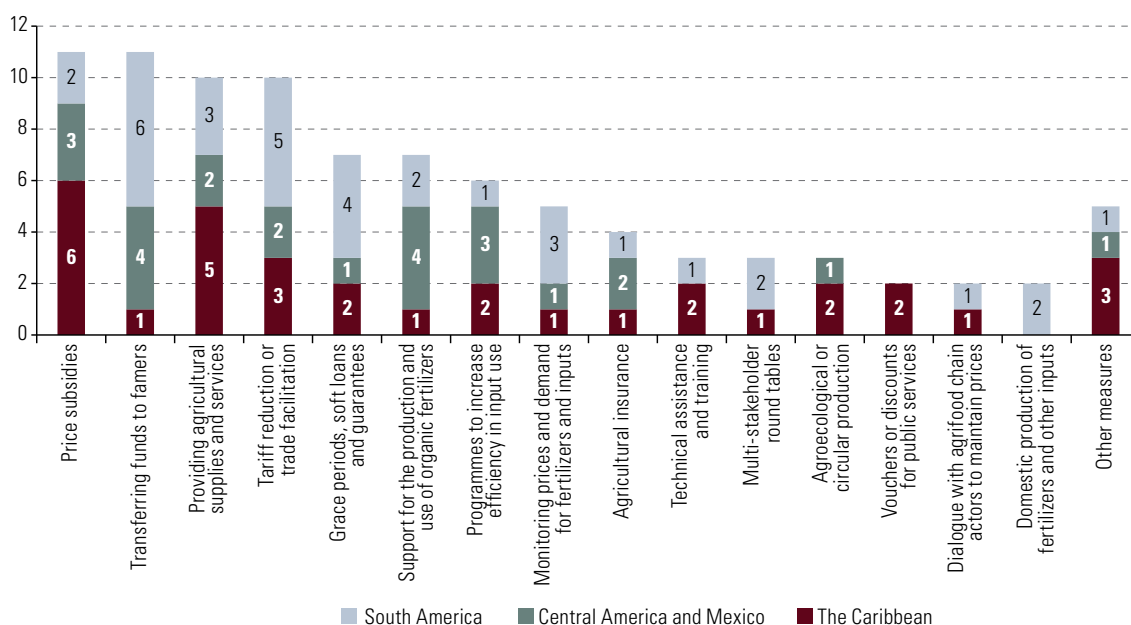
Figure 12 Latin America and the Caribbean: number of countries that have implemented measures in response to rising food prices, by subregion, end-February 2022–end-May 2022



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO).

- The countries of South America prioritized tariff reductions, price controls or price stabilization, income transfers and the reduction of consumption taxes. Measures in the countries of Central America and in Mexico focused on monitoring food prices and supply and providing subsidies, coupons or discounts for food purchases and for the payment of public services. The countries of the Caribbean placed greater emphasis on the promotion of local food consumption, provision of food baskets, school feeding programmes and community kitchens, the promotion of urban, peri-urban and backyard agriculture, and improvements in food distribution infrastructure.
- With regard to the measures adopted to address high fertilizer and energy prices, subsidies for fertilizers and other inputs and cash transfers to agricultural producers for the purchase of inputs were adopted by at least 11 countries of the region (see figure 13). These were followed by the provision of inputs and services to agricultural producers and tariff reduction or trade facilitation in the importing of fertilizers and other agricultural inputs. An interesting trend is the increase in support for the production and use of organic fertilizers, a measure applied in seven countries of the region, who leveraged the situation to make important structural changes in the agricultural sector.

Figure 13 Latin America and the Caribbean: number of countries that have implemented measures in response to rising food prices, by subregion, end-February 2022–end-May 2022



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Food and Agriculture Organization of the United Nations (FAO).

- Caribbean countries concentrate their efforts on measures such as price subsidies, delivery of fertilizers and other inputs and providing technical assistance and support for agroecological production. Mexico and the countries in Central America focus on supporting the production and use of organic fertilizers, increasing input efficiency, and agricultural insurance. In South America, policy efforts focus on transferring funds to farmers, tariff reductions, soft loans, price monitoring, multi-stakeholder round tables and support for domestic fertilizer production.

G. Reconciling the responses with efforts to reduce structural and fiscal problems

- An emergency response is needed to ensure that the population has access to food and to ensure that farmers are able to maintain production. Over the medium and long term, it is essential to reduce the region's exposure to crises, which also implies increasing fiscal and debt sustainability.
- The complexity and scope of the policies required means that coordination is needed in various areas—macroeconomic, social and productive—through fair and inclusive multilateral, multilevel and multi-stakeholder processes. The stakes go beyond combating food insecurity and hunger. If the crisis continues to spread, the region could see major setbacks in terms of poverty, inequality, climate change and sustainable development. Coordinated regional responses are critical.

1. Facilitating trade in agricultural products and fertilizers

(a) No restrictions on international trade in food and fertilizers

- Maintaining the free flow of trade in food and fertilizers is essential to prevent the war from further affecting food production and other productive activities. This includes not only refraining from applying trade restrictions on food and fertilizer but also continuing to take action for the release of grain stocks from Ukraine.
- Increasing intraregional food trade is another key action. The share of intraregional trade in the region's food imports was 39% in 2019 and ranged from 88% for the Plurinational State of

Bolivia to 7% for Mexico.⁸ To increase the participation of regional partners in the food market of Latin America and the Caribbean, the main competitive, commercial and logistical barriers must be identified, and then coordinated measures must be developed to improve market access.

(b) Improving transparency by sharing key information

- Countries must work together to improve market transparency and prevent speculation, by sharing data on inputs, production and strategic food reserves. Transparency in global markets is critical when there is uncertainty in agricultural commodity markets and there is a need to adapt to supply and demand shocks. Initiatives such as the following should be given greater visibility and their scope should be expanded in the region:
 - The Group of Twenty (G20) Agricultural Market Information System (AMIS) aims to increase transparency by providing objective, timely and up-to-date market assessments to enable informed policy decisions.⁹ SIMA also provides a unique platform for policy dialogue and coordination among members (including the Russian Federation and Ukraine).
 - The FAO Global Information and Early Warning System for Food and Agriculture (GIEWS) monitors and reports on food supply and demand worldwide.¹⁰ It is one of the main sources of information on food production and food security at the national, regional and global levels. The System provides comprehensive information on agricultural commodity markets and supports national and regional initiatives to establish and improve early warning systems.
 - Sistema Regional de Inteligencia y Monitoreo de Mercados Agrícolas (SIMMAGRO) (regional system for agricultural market information and monitoring) is a Central American online platform connected to national systems that aims to facilitate access to standardized statistical information on wholesale market prices, foreign trade and production for the 40 agricultural products that are vitally important at the subregional level. Strengthening its operation and extending it to other countries in the region would contribute to market transparency.

(c) Considering alternative mechanisms for financing imports

- FAO proposes to create a food import financing facility to help the 62 most vulnerable countries in the world to finance the additional cost of food imports (FAO, 2022c). In the region, El Salvador and the countries of the Caribbean would be eligible to participate in the initiative. The fund also aims to increase agricultural production and productivity in a sustainable manner in low- and lower-middle-income net food-importing countries. By making support for qualified countries conditional on investing in agri-food systems that are more sustainable, the fund is also expected to increase the future resilience of food production.

(d) Diversifying sources and varieties of food and fertilizers

- To the extent that trade flows are guaranteed to continue, countries that depend on imports of food and inputs from Ukraine and the Russian Federation will be able to diversify sources by seeking alternative suppliers, thus reducing their vulnerability to supply shocks.
- In the short term, there is room for substitution both in food trade and, to a lesser extent, fertilizer trade. In the medium term, new suppliers may emerge if high prices make it economically viable for marginal producers to enter the market. In the long term, changing diets and shifting fertilization techniques towards local products to replace increasingly costly imports is a strategy already being promoted in several countries and which merits strengthening.
- The countries of Latin America and the Caribbean have a rich diversity of crops, typically produced by family farming. These crops have nutritional advantages and can partially replace imported cereals. Although dietary change usually happens gradually, the advantages of diversification and of consuming local, fresh and nutritious products to promote food and nutrition security justify the implementation of such programmes.

⁸ Calculations on the basis of information from FAOSTAT.

⁹ See [online] http://www.amis-outlook.org/fileadmin/user_upload/amis/docs/AMIS_brochure/Spanish_AMIS_Brochure_web.pdf.

¹⁰ See FAO, Food Price Monitoring and Analysis (FPMA) Tool [online] <https://fpma.fao.org/gIEWS/fpmat4/#/dashboard/home>.

2. Strengthening social protection systems and extending their reach in urban and rural areas

- The region has vast experience in using national social protection systems to respond to shocks, through horizontal and vertical expansion, the adjustment of existing programmes and the development of new programmes. The response to the effects of the pandemic involved large-scale actions, including the adoption of more than 340 social protection measures in the countries of the region (ECLAC, 2021; WFP, 2020a, 2020b and 2021b).

(a) Maintaining the purchasing power of income transfers

- Shortly after the outbreak of the COVID-19 pandemic, most countries of the region expanded the coverage or increased the amount of cash transfers to the most vulnerable segments of the population, which have been instrumental in preventing an even greater increase in poverty. As expected, these transfers decreased in 2021 and continue to do so in 2022 (ECLAC, 2021 and 2022a).
- There is an urgent need to apply the lessons learned during the pandemic, putting social protection at the centre of responses to the inflationary crisis affecting the region, in particular the most vulnerable sectors of the population. By expanding coverage or increasing the amounts provided by social programmes in response to the current price hikes, priority should be given to those who are least able to absorb the rising cost of food and other basic necessities. Given the devastating impact of malnutrition on children, it is critical to reach households with children, as well as vulnerable groups such as pregnant or lactating women, older persons or persons with disabilities, indigenous peoples, migrants and displaced persons, and informal economy workers. The response must be rapid and remain in effect for as long as food prices remain high (SPIAC-B, 2022).
- Some countries have already taken steps in this direction, either by increasing the amounts in existing cash transfers programmes or by introducing new transfers to protect the most vulnerable, older persons or persons with disabilities (see box 1).

Box 1 Latest social protection measures for cushioning the impact of inflation on food security

- As they did in response to the COVID-19 pandemic, some countries have begun to adopt measures to mitigate the effects of higher prices for food and other basic necessities. In April 2022, Argentina announced a 50% increase in the cash transfer programme to help low-income families buy food through the use of the *Tarjeta Alimentar*. This increase in the transfer amount followed a recent one-off payment of between 9,000 and 18,000 pesos (about US\$ 76 and US\$ 153, respectively) for each family entitled to the card, depending on the number of children in the household. The government also announced a special payment of 12,000 pesos (US\$ 101) to support pensioners, which is still pending congressional approval.
- Brazil approved in May the extension of the *Auxílio Brasil* programme, which provides cash to low-income families, covering 18 million families (8.5% of the total population). This extension makes the programme, initially introduced as a stopgap to mitigate the adverse economic effects of COVID-19, a permanent measure, replacing the *Bolsa Família* programme. In addition to extending it, the government also raised the amount of the minimum transfer from 400 reais to 600 reais (US\$ 111 dollars) per month until December 2022.
- Chile also announced in April an expansion of cash transfers to holders of the Consolidated Household Subsidy and Family Allowance. The new programme, called *Canasta Básica Protegida*, will cover more than 3 million people (16% of the population) with an additional payment of 6,410 pesos per month (US\$ 17 dollars) until the end of the year, an amount that can be adjusted according to changes in the price index of a basic basket of goods. In addition to this measure, the Government of Chile mandated a gradual increase in the minimum wage as of 1 May 2022. The minimum wage had risen by 14.3% in August and will be adjusted again in January 2023 if annual inflation rises above 7% by the end of the year.
- In Guyana, meanwhile, the government made a one-off payment of 25,000 Guyana dollars (G\$), equivalent to US\$ 120, each to 32,000 households in coastal and hinterland communities in May. In the same month, the government announced that it would allocate G\$1 billion (US\$ 4.8 million) to purchase fertilizers to be distributed free of charge to farmers.

- Lastly, the Dominican Republic has taken several measures to help households cope with spiralling inflation. A 10% subsidy for basic foodstuffs (maize, wheat, soybeans, flour and vegetable oil) was announced in March. In addition, under the umbrella of the social protection strategy known as the *Supérate* programme, the government plans to include 300,000 new households in the nutrition component of its *Aliméntate* cash transfer programme. It hopes to cover approximately 1.65 million households by the end of 2022, raising the amount of the transfer from 825 Dominican pesos to 1,650 Dominican pesos (US\$ 30) per month. Similarly, 400,000 new households will be incorporated into the Bono Gas component of the cash transfer programme. This is intended to benefit 1.4 million households, with monthly payments increased from 228 Dominican pesos to 470 Dominican pesos (about US\$ 8.5) per household.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Gentilini and others, "Tracking global social protection responses to price shocks", *Discussion Paper*, N° 2210, World Bank, July 2022.

- In a situation where fiscal resources are limited and there is a need to generate the greatest possible positive impact on food security, it is important to consider the advantages of measures other than cash transfers, such as the delivery of food and food vouchers. There is conclusive evidence in Ecuador and Argentina of the positive effect on food security of cash transfers, the use of vouchers or cards for food purchases and the delivery of in-kind products. In general, such measures affect the amount of food consumed more than its quality or variety, which justifies including additional actions in programmes, such as nutritional education (Hoddinott and others, 2013; Poy, Salvia and Tuñón, 2021).
- In any event, the costs of such programmes should be compared with the costs associated with hunger and the double burden of malnutrition (which includes health costs because of related diseases and productivity losses owing to work and school absenteeism). In the region, these losses range from 17.3% of GDP in Guatemala to 0.2% of GDP in Chile, with an average of 3.7% of GDP for the 13 countries with available information.¹¹ Combating hunger and investing in good nutrition has positive impacts on quality of life as well as economic benefits for countries.

(b) An active role for food programmes

- One relevant experience has been the adaptation of national school feeding programmes for use in the context of the restrictions imposed by the pandemic (see box 2). In many of these programmes, preference was given to purchasing from family farms, establishing purchasing quotas and investing in projects to overcome barriers to entry.

Box 2 School feeding programmes to enhance food security in crisis situations

- School feeding programmes are a key and large-scale entry point for improving food and nutrition security for school-aged children and the education community: in the region, 85 million children are served through national school feeding programmes (WFP, 2017). These programmes have demonstrated their ability to adapt and maintain continuity of service, even with schools closed during the pandemic. With schools having shut down in 32 countries in the region, programmes had to adjust their delivery method.
- Most of the programmes (17) moved to delivering raw or industrialized food rations in lieu of providing meals at schools; in general, these rations had to be collected from schools or other distribution points. In a few cases, such as the Plurinational State of Bolivia or Trinidad and Tobago, countries opted to provide money transfers to compensate for the lack of school meals. In Colombia, a mixed strategy was chosen, with a choice between three options: industrialized rations, rations to be prepared at home or a food voucher. In Costa Rica and Honduras, food kits were delivered to supplement schoolchildren's meals at home.

¹¹ On the basis of information from WFP, "The Cost of the Double Burden of Malnutrition" [online] <https://www.wfp.org/publications/2017-cost-double-burden-malnutrition-social-and-economic-impact>.

- In order to enable the new food delivery mechanisms, some countries issued decrees, made regulatory adjustments and revised contracts with suppliers, while implementing biosafety protocols in line with health authority guidelines. In Nicaragua, the government took advantage of the school feeding programme—with support from the World Food Programme (WFP)—to respond to the crises generated by the pandemic and by hurricanes Eta and Iota, providing assistance not only to students but also to their families. Many countries also implemented digital tools and georeferencing applications to streamline communication regarding food delivery points, schedules and measures to prevent the spread of coronavirus disease (COVID-19).
- The experience of the pandemic shows the importance of providing social protection programmes that have the flexibility to respond to emergencies. It also shows that up-to-date social registers and information systems are vital, and can be used to rapidly expand the coverage of social programmes in response to economic or other shocks. Increasing extreme poverty and food insecurity requires an adequate response in the short term and means that food programmes must be enhanced and both their coverage and operation must be improved, based on food and nutritional security criteria.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), based on World Food Programme (WFP), Smart school meals. Nutrition-sensitive national programmes in Latin America and the Caribbean: a review of 16 countries, April 2017; *Respuestas de los programas de alimentación escolar al COVID-19 en América Latina y el Caribe*, October 2021; and programme websites.

- Community kitchens and centres can play a complementary role because of their links with the poor and the elderly. Food banks also play an important role. All have reported increased demand for food assistance since the onset of the pandemic. In addition to their direct contribution to addressing food insecurity, these channels create longer-term positive externalities by fostering community networks, care, inclusion and social cohesion. Several countries expanded these services during the pandemic and have subsequently strengthened them in response to rising food prices.
- Linking local and regional agricultural supply to food programmes through purchasing agreements can be a win-win strategy for participants, producers and the beneficiaries of policies alike. Support to family farmers could include the provision of subsidies or the free distribution of seeds of vegetables and other healthy foods as part of institutional procurement plans for school canteens or health facilities. Efforts should be made to take advantage of the lessons learned and outcomes of the various regional public procurement programmes involving family farming. These include the following:
 - Brazil has set a benchmark in family farmers' access to institutional markets through the Food Procurement Programme (PAA) and the National School Feeding Programme (PNAE), which are considered to be the world's foremost family farming public procurement programmes (FAO and others, 2020).
 - In Chile, the companies that supply food for the School Meals Programme (PAE) buy a portion of their inputs from family farmers, small local producers and producers in marginalized areas.
 - In Guatemala, the Government, with support from the International Fund for Agricultural Development (IFAD), FAO and the World Food Programme (WFP), aims to strengthen the value chain of its School Feeding Programme (PAE), which is sustainably linked to family farming.
 - In Colombia, Act no. 2046 promotes public procurement from small-scale, family and community agriculture by establishing food supply conditions and instruments for all public food supply and distribution programmes.
 - Given the situation of global markets, WFP prefers regional or local contracting to international contracting in its operations in the region. Currently, almost all of its procurement in Latin America and the Caribbean is regional or local (WFP, 2022a). Agreements with producers, called regional food supply agreements, have made it possible to lock in purchase prices in a context of international market volatility.
 - El Salvador, Guatemala, Honduras and Nicaragua are also implementing a local and regional food procurement policy, together with WFP, to promote fair and inclusive local food value chains and improve the efficiency of smallholder market systems (WFP, 2022a).

New procurement modalities and traceability systems are being developed and tested and market channels are being explored, including connections with the private sector, public procurement and retailer networks.

- The inclusion of local meals and products in school menus and in community kitchens and centres increases food acceptance and reduces waste, enhancing food safety and reducing emissions from losses. This approach provides opportunities to promote the economic development of smallholder farmers and local communities and strengthen the connection between nutrition, agriculture and social protection (FAO, 2020).

(c) Linking social protection programmes with agricultural production programmes

- Farmers, and the rural population in general, face limitations that prevent them from accessing social protection systems. These barriers can be legal, financial, administrative or institutional (ILO/FAO, 2021). It is essential that social protection systems consider the working and living conditions of rural workers and people, taking into account the risks, vulnerabilities and specific conditions they face.
- It is also important for interventions to link social protection systems with the promotion of livelihoods in order to foster the conditions for both social inclusion and productive and economic inclusion. In rural areas, it is particularly important to generate synergies between social protection interventions and agriculture. Available information shows that coordination between the two sectors allows households to invest in innovative and sustainable income-generating opportunities (FAO, 2017; Winder Rossi and Faret, 2019).

(d) Strengthening the institutional framework of social protection systems

- Social protection systems must be strengthened through the establishment of clear policy goals and objectives, plans and strategies, budgets, and provision of adequate technical and institutional resources to be able to respond to recurrent shocks. It is also essential to ensure that systems and programmes have the flexibility to respond to shocks that are unforeseen or of larger scale than usual. The COVID-19 pandemic showed anew that countries with strong social protection systems are better able to deliver a large-scale, inclusive, comprehensive and effective response to a crisis. The strength of a social protection system depends on factors such as sound legal frameworks and own funding for social welfare programmes, with both public and private resources; a large proportion of the population in possession of national identity documents; social programmes with wide coverage; high levels of financial and digital inclusion; and high-quality and up-to-date social registers and information systems. The pandemic also highlighted that the ability to scale up social programmes quickly and safely in an emergency will increasingly depend on the adoption of digital solutions (Beazely, Marzi and Steller, 2021; Roelen and Carter, 2022; SPIAC-B, 2022).
- It is therefore imperative to move from temporary emergency responses to measures that build the resilience of social protection systems, to ensure that they provide equitable access for the whole population, especially the poor and most vulnerable. This requires safeguarding the budgets allocated to social protection in a regional context of crisis and fragility, with limited fiscal space. Although social protection is given a prominent position on public agendas, current economic and fiscal restrictions could lead to cuts in the budget allocated to the sector. The pandemic and the likelihood of recurrent shocks and crises in the future, including those linked to climate change, make it clear that to do so would be a mistake.

3. Supporting family farming to maintain food production

- Family farmers are among the most vulnerable groups in the current crisis. In rural areas, self-employed agricultural workers have the lowest income, and are therefore among the groups most affected by extreme poverty. This makes policies to support self-employed smallholder farmers strategically important because of their capacity to increase local food supply and their potential to reduce extreme poverty.

(a) Ensuring access to and promoting efficiency in the use of fertilizers and biofertilizers

- Ensuring that small producers have access to fertilizers is a necessary measure that several countries are implementing. Such measures are valid if they focus on the most vulnerable producers, are conditional on improving efficiency in the use of inputs and increase the sustainability of agricultural activity.
- In this regard, loans at favourable rates and subsidies that countries grant to farmers should be conditional, in gradually increasing measure, on farmers transitioning to more resilient agricultural production. A portion of the soft loans and subsidies granted to family farmers can be used to purchase organic inputs, depending on the local supply, or to increase efficiency in the use of fertilizers in general.
- High fertilizer prices create an incentive for a search for alternative, more ecological production solutions and for the use of nature-based solutions. A variety of initiatives in the region promote the use of organic inputs to replace or complement synthetic fertilizers (FAO, 2022d). Alternatives include the following:
 - Practices based on high levels of information and knowledge of soil and crop characteristics (identification of nutritional deficiencies, balanced fertilization programmes based on soil sampling and analysis).
 - The use of organic matter and microorganisms (use of growth-promoting microorganisms, organic fertilizers and amendments and biochar).
 - Combining different crops to promote soil health (companion planting or intercropping, crop rotation, cover crops and agroforestry).
 - The use of digital technologies to generate soil maps and precision agriculture.
- Financing for these initiatives should come not only from public budgets but also from development banks, private banks (with guarantee mechanisms backed by public policies) and other international financing alternatives such as green and social bonds, given the potential impact of these policies in reducing poverty and inequality and increasing environmental sustainability.
- One alternative is the formation of a consortium of multilateral and regional development banks to create a financing mechanism to invest in technologies that will increase the efficiency of fertilizer use in family farming and step up regional biofertilizer production.

(b) Technical assistance for the transition to alternative fertilizers

- In addition, it is essential to ensure that farmers have broad access to technical assistance to enable them to make the transition towards more resilient agricultural methods. Through technical assistance and incentives, farmers can be guided to modify their fertilization programmes, adopt more sustainable practices, or substitute crops for species that require less intensive use of synthetic fertilizers.
- With budgets being insufficient and ministries of agriculture seeing further cuts, ministries, producer associations and chambers and research institutions should consider taking advantage of the advances made in digitalization during the pandemic to implement digital technical assistance programmes, whose cost can be up to 90% less than the cost of conventional programmes.

(c) Linking to markets and promoting peri-urban agriculture

- Another effective way to support small producers is to encourage them to forge links with stable and reliable institutional markets, such as school feeding programmes and other types of public procurement. There are several such programmes in a number of countries of the region: more than 60% of them connect small farmers with schools, through a variety of models and at various scales (see point 2 of section G).
- Including vulnerable urban and peri-urban families and communities in setting up gardens for their own consumption is an option to address the food crisis, and can be implemented in coordination with non-governmental organizations, foundations and other local actors. These programmes

deliver input kits that are subsidized or financed with microcredit lines at soft rates, to develop outdoor or greenhouse production of vegetables, fruit, honey, eggs, flowers, medicinal herbs and processed foods, among other options. They can be complemented by setting up local markets where surpluses are sold directly to consumers.

- One such example is the *ProHuerta* programme in Argentina, a public policy initiative jointly managed with the National Institute for Agricultural Technology (INTA), which for several years has been promoting small-scale production aimed at vulnerable urban or peri-urban sectors. Some Caribbean countries have also invested in such policies in response to the food and fertilizer crisis.

H. Towards a regional food security plan

- In coordinating responses to the current crisis, it is important to use existing coordination mechanisms in order to reduce costs and take advantage of progress made. Ongoing regional initiatives, such as the Plan for Food and Nutrition Security and the Eradication of Hunger 2025 of the Community of Latin American and Caribbean States (CELAC) and the coalitions formed after the Food Systems Summit, held in September 2021, are important spaces for discussion and coordination.¹²
- At the same time that the regional institutional framework is being affirmed, the policy agenda for dealing with the crisis must be updated based on new information and the recent experience of the region's governments. Government agencies have accumulated significant operational expertise from their experience in dealing with emerging issues such as pandemics, fragile supply chains, volatile commodity prices and increasing fiscal constraints.
- Taking into account these advances, the establishment of a regional working group, led by CELAC, with technical coordination by ECLAC, FAO and WFP in cooperation with the Food Systems Summit road maps and coalitions, is proposed to support countries, considering the current crisis, in the implementation of the CELAC Plan for Food and Nutrition Security and the Eradication of Hunger 2025, including measures based on available empirical data, to improve the food situation by 2030.
- Among other tasks, the working group will provide technical assistance to countries that require it for developing policy responses to the food and fertilizer crisis and generally improving the sustainability and resilience of agrifood systems. The working group will also seek to enhance synergies and complementarities between the work programmes of the coordinating institutions (ECLAC, FAO and WFP) and the regional food security plan.
- Government bodies with portfolios for developing food and nutrition security policies (line ministries in areas such as agriculture, economics, social development, environment and health) have been facing growing budgetary constraints in recent years and must urgently improve the quality and effectiveness of programmes. Recognizing these needs, the working group should seek to include private investment in the implementation of the plan and apply an approach that combines soft loans with low-cost technological and institutional innovations and maximum utilization of local resources.

¹² Prepared by FAO, ECLAC and the Latin American Integration Association (LAIA), and approved at the Third Summit of Heads of State and Government of the Community of Latin American and Caribbean States (CELAC), held in Belen, Costa Rica, in January 2015.

Bibliography

- Beazley, R., M. Marzi and R. Steller (2021), “Drivers of timely and large-scale cash responses to COVID-19: what does the data say?”, *Social Protection Approaches to COVID-19 Expert Advice Service (SPACE)*, DAI Global UK Ltd [online] <https://www.calpnetwork.org/publication/space-drivers-of-timely-and-large-scale-cash-responses-to-covid-19-what-does-the-data-say/>.
- Dutoit, L., K. Hernández and C. Urrutia (2010), “Transmisión de precios en los mercados del maíz y el arroz en América Latina”, *Production Development series*, No. 190 (LC/L.3271-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- ECLAC (Economic Commission for Latin America and the Caribbean) (2022a), *Repercussions in Latin America and the Caribbean of the war in Ukraine: how should the region face this new crisis?*, Santiago, 6 June [online] <https://www.cepal.org/es/publicaciones/47912-repercusiones-america-latina-caribe-la-guerra-ucrania-como-enfrentar-esta-nueva>.
- ___(2022b), *Economic Survey of Latin America and the Caribbean, 2022* (LC/PUB.2022/9-P), Santiago.
- ___(2022c), *Social Panorama of Latin America and the Caribbean, 2022* (LC/PUB.2022/15-P), Santiago.
- ___(2021), *Social Panorama of Latin America, 2021* (LC/PUB.2021/17-P), Santiago.
- ___(2020), “The social challenge in times of COVID-19”, *Special Report COVID-19*, No. 3, Santiago.
- ___(2018), “Income poverty measurement: updated methodology and results”, *ECLAC Methodologies*, No. 2 (LC/PUB.2018/22-P), Santiago.
- ECLAC/FAO (Economic Commission for Latin America and the Caribbean/Food and Agriculture Organization of the United Nations) (2020), “Preventing the COVID-19 crisis from becoming a food crisis: Urgent measures against hunger in Latin America and the Caribbean”, *COVID-19 Report. ECLAC-FAO*, 16 June.
- ECLAC/FAO/IICA (Economic Commission for Latin America and the Caribbean/Food and Agriculture Organization of the United Nations/Inter-American Institute for Cooperation on Agriculture) (2011), “Volatilidad de precios en los mercados agrícolas (2000-2010): implicaciones para América Latina y opciones de políticas”, *Boletín CEPAL/FAO/IICA*, No. 1.
- ECLAC/FAO/LAIA (Economic Commission for Latin America and the Caribbean/Food and Agriculture Organization of the United Nations/Latin American Integration Association) (2016), *Food and nutrition security and the eradication of hunger CELAC 2025: Furthering discussion and regional cooperation*, Santiago.
- European Commission (2022), “Drought in Europe”, *GDO Analytic Report*, July [online] https://edo.jrc.ec.europa.eu/documents/news/GDO-EDODroughtNews202207_Europe.pdf.
- FAO (Food and Agriculture Organization of the United Nations) (2022a), “Impact of the Ukraine-Russia conflict on global food security and related matters under the mandate of the Food and Agriculture Organization of the United Nations (FAO)”, Rome, 8 April [online] <https://www.fao.org/3/nj164en/nj164en.pdf>.
- ___(2022b), “The importance of Ukraine and the Russian federation for global agricultural markets and the risks associated with the war in Ukraine”, *Information Note*, 10 June [online] <https://www.fao.org/3/cb9013en/cb9013en.pdf>.
- ___(2022c), “A Global Food Import Financing Facility (FIFF): responding to soaring food import costs and addressing the needs of the most exposed”, *Technical Background Document*, Rome, 7 April [online] <https://www.fao.org/3/cb9445en/cb9445en.pdf>.
- ___(2022d), “Alternatives for the sustainable management of soil fertilization and plant nutrition”, Santiago [online] <https://www.fao.org/3/cc0964es/cc0964es.pdf>.
- ___(2022e), *Ukraine Rapid Response Plan. March-December 2022* [online] <https://www.fao.org/3/cb9457en/cb9457en.pdf>.
- ___(2020), *FAO School Food and Nutrition Framework*, Rome [online] <https://www.fao.org/3/ca4091es/CA4091ES.pdf>.
- ___(2019), *World fertilizer trends and outlook to 2022*, Rome.

- ___ (2017), *FAO Social Protection Framework*, Rome [online] <https://www.fao.org/3/i7016e/i7016e.pdf>.
- FAO (Food and Agriculture Organization of the United Nations) and others (2022), *The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable*, Rome [online] <https://www.fao.org/3/cc0639en/cc0639en.pdf>.
- FAO (Food and Agriculture Organization of the United Nations) and others (2020), *Panorama de la seguridad alimentaria y nutrición en América Latina y el Caribe, 2020*, Santiago [online] <https://doi.org/10.4060/cb2242es>.
- Gentilini, U. and others (2022), "Tracking global social protection responses to price shocks", *Discussion Paper*, No. 2210, World Bank, July.
- Glauber, J. and D. Laborde (2022), "Do no harm: measured policy responses are key to addressing food security impacts of the Ukraine crisis", *IFPRI Blog Issue Post*, 12 April.
- Glauber, J., D. Laborde and A. Mamun (2022), "From bad to worse: how Russia-Ukraine war-related export restrictions exacerbate global food insecurity", *IFPRI Blog Issue Post*, 13 April [online] <https://www.ifpri.org/blog/bad-worse-how-export-restrictions-exacerbate-global-food-security#>.
- Greb, F. and others (2012), *Price Transmission from International to Domestic Markets* [online] <https://openknowledge.worldbank.org/bitstream/handle/10986/24054/Price0transmis00to0domestic0markets.pdf?sequence=1>.
- Hidrobo, M. and others (2012), "Cash, food, or vouchers? Evidence from a randomized experiment in Northern Ecuador", *IFPRI Discussion Paper*, No. 01234, December.
- Hoddinott, J. and others (2013), *Enhancing WFP's Capacity and Experience to Design, Implement, Monitor, and Evaluate Vouchers and Cash Transfer Programmes: Study Summary*, June [online] <https://sohs.alnap.org/system/files/content/resource/files/main/128172.pdf>.
- Huang, W. (2009), "Factors contributing to the recent increase in U.S. fertilizer prices, 2002-08", Economic Research Service (ERS) of the United States Department of Agriculture (USDA) [online] https://www.ers.usda.gov/webdocs/outlooks/35824/10935_ar33.pdf?v=2632.2.
- ILO/FAO (International Labour Organization/Food and Agriculture Organization of the United Nations) (2021), *Extending social protection to rural populations: Perspectives for a common FAO and ILO approach*, Geneva [online] <https://doi.org/10.4060/cb2332es>.
- IMF (International Monetary Fund) (2022), *World Economic Outlook: War Sets Back the Global Recovery*, Washington, D.C., April.
- IPEA (Institute of Applied Economic Research) (2022), "Inflação por faixa de renda – Junho/2022", *Carta de Conjuntura*, No. 56 [online] https://www.ipea.gov.br/portal/images/stories/PDFs/conjuntura/220714_cc56_notas5_ifr_jul22.pdf.
- Laborde, D. and A. Mamun (2022), "Food and fertilizer Export Restrictions Tracker" [online] <https://public.tableau.com/app/profile/laborde6680/viz/ExportRestrictionsTracker/FoodExportRestrictionsTracker>.
- Laborde, D. and J. Glauber (2022), "Suspension of the Black Sea Grain Initiative: What has the deal achieved, and what happens now?", International Food Policy Research Institute (IFPRI), 31 October [online] <https://www.ifpri.org/blog/suspension-black-sea-grain-initiative-what-has-deal-achieved-and-what-happens-now>.
- New York Times* (2022), "Good news for food, bad news for war: Brazil buys Russian fertilizer", 8 May.
- Poy, S., A. Salvia and I. Tuñón (2021), "Evaluación de impacto del Programa Tarjeta ALIMENTAR: efectos directos e indirectos en la inseguridad alimentaria, consumos alimentarios y no alimentarios", *Informe especial del Barómetro de la Deuda Social Argentina*.
- Roelen, K. and B. Carter (2022), "Social assistance in response to Covid-19: reaching the furthest behind first?", *Policy Briefing*, Brighton, Institute of Development Studies (IDS).
- SPIAC-B (Social Protection Inter-Agency Cooperation Board) (2022), *Social protection responses to food price shocks. SPIAC-B Joint Statement*, August.
- Torero, M. and M. Hernández (2018), *Promoting competition in the fertilizer industry and efficiency in the fertilizer use to improve land productivity and sustainability*, Argentine Council of Foreign Relations (CARI).
- United Nations (2022a), "Global impact of the war in Ukraine: billions of people face the greatest cost-of-living crisis in a generation", *UN Global Crisis Response Group Brief*, No. 2, 8 June [online] <https://www.unep.org/resources/publication/global-impact-war-ukraine-billions-people-face-greatest-cost-living-crisis>.

- __(2022b), *World Economic Situation and Prospects as of mid-2022*, New York.
- USDA (United States Department of Agriculture) (2022), *World Agricultural Production*, Circular Series, WAP 8-22, Foreign Agricultural Service, August [online] <https://downloads.usda.library.cornell.edu/usda-esmis/files/5q47rn72z/6h442129q/rx914x69w/production.pdf>.
- Von Braun, J. and others (2008), "High food prices: the what, who, and how of proposed policy actions", *IFPRI Policy Brief*, Washington, D.C.
- WFP (World Food Programme) (2022a), "Food security implications of Ukraine crisis in Latin America and the Caribbeans", July.
- __(2022b), "Rapid assessment of the mixed migration flows in the Americas: Executive summary".
- __(2021a), *Protección social reactiva ante emergencias. La respuesta de Perú a la pandemia COVID-19*.
- __(2021b), *Respuestas de los programas de alimentación escolar al COVID-19 en América Latina y el Caribe*, October.
- __(2020a), *La respuesta de protección social a la pandemia COVID-19 en América Latina y el Caribe: tendencias, innovaciones y aprendizajes en curso*, July.
- __(2020b), *Protección social reactiva ante emergencias en América Latina y Caribe: la respuesta de Republica Dominicana a la pandemia COVID-19*, September.
- __(2017), *Nutrir el futuro: programas de alimentación escolar sensibles a la nutrición en América Latina y el Caribe: un estudio de 16 países*, April.
- Winder Rossi, N. and P. Faret (2019), *Garantías mínimas de protección social para el desarrollo incluyente de la economía rural en América Latina y el Caribe*, Santiago, Food and Agriculture Organization of the United Nations (FAO).
- Zachariah, M. and others (2022), "Climate Change made devastating early heat in India and Pakistan 30 times more likely" World Weather Attribution (WWA) [online] https://www.worldweatherattribution.org/wp-content/uploads/India_Pak-Heatwave-scientific-report.pdf.

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